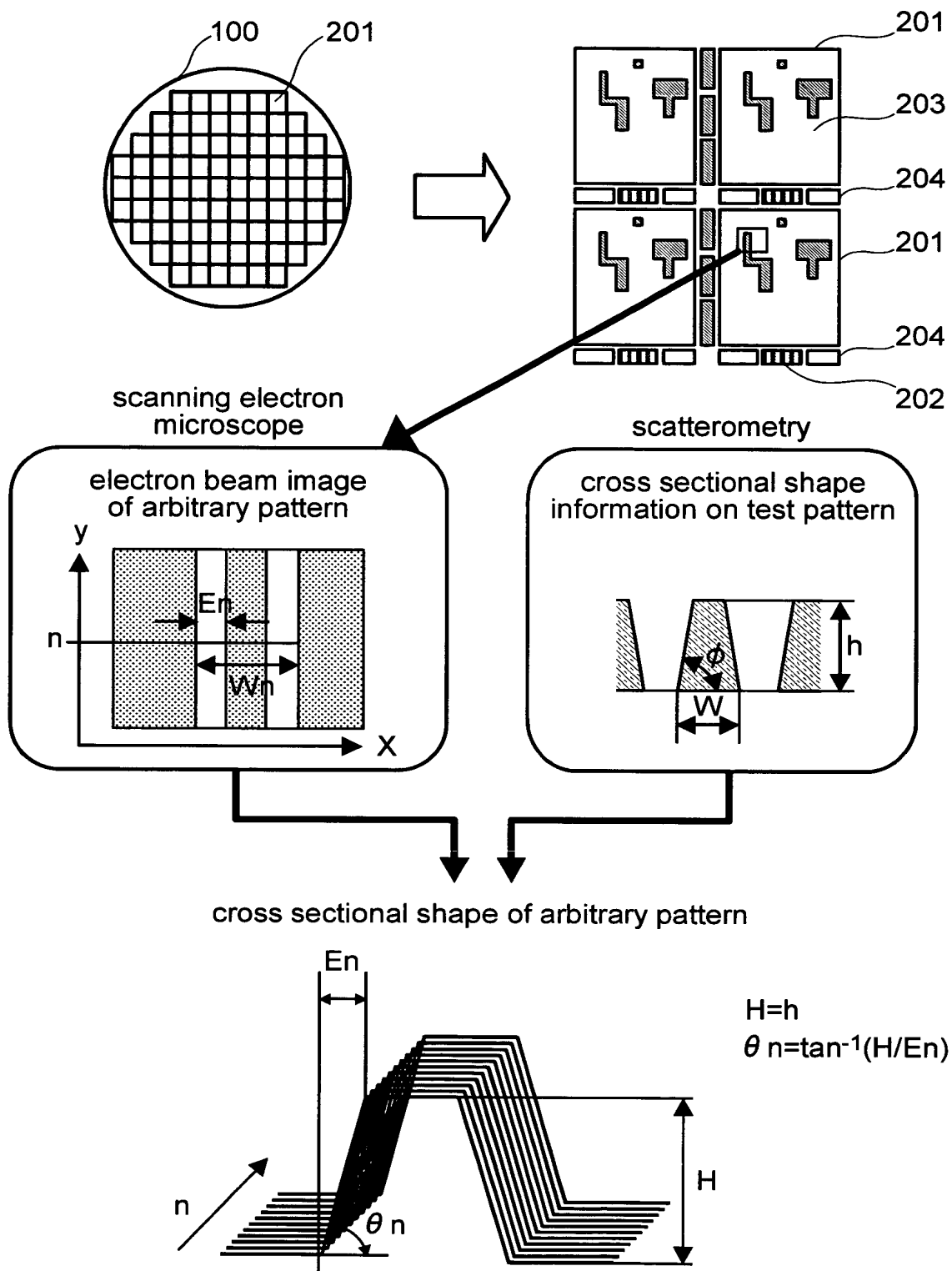
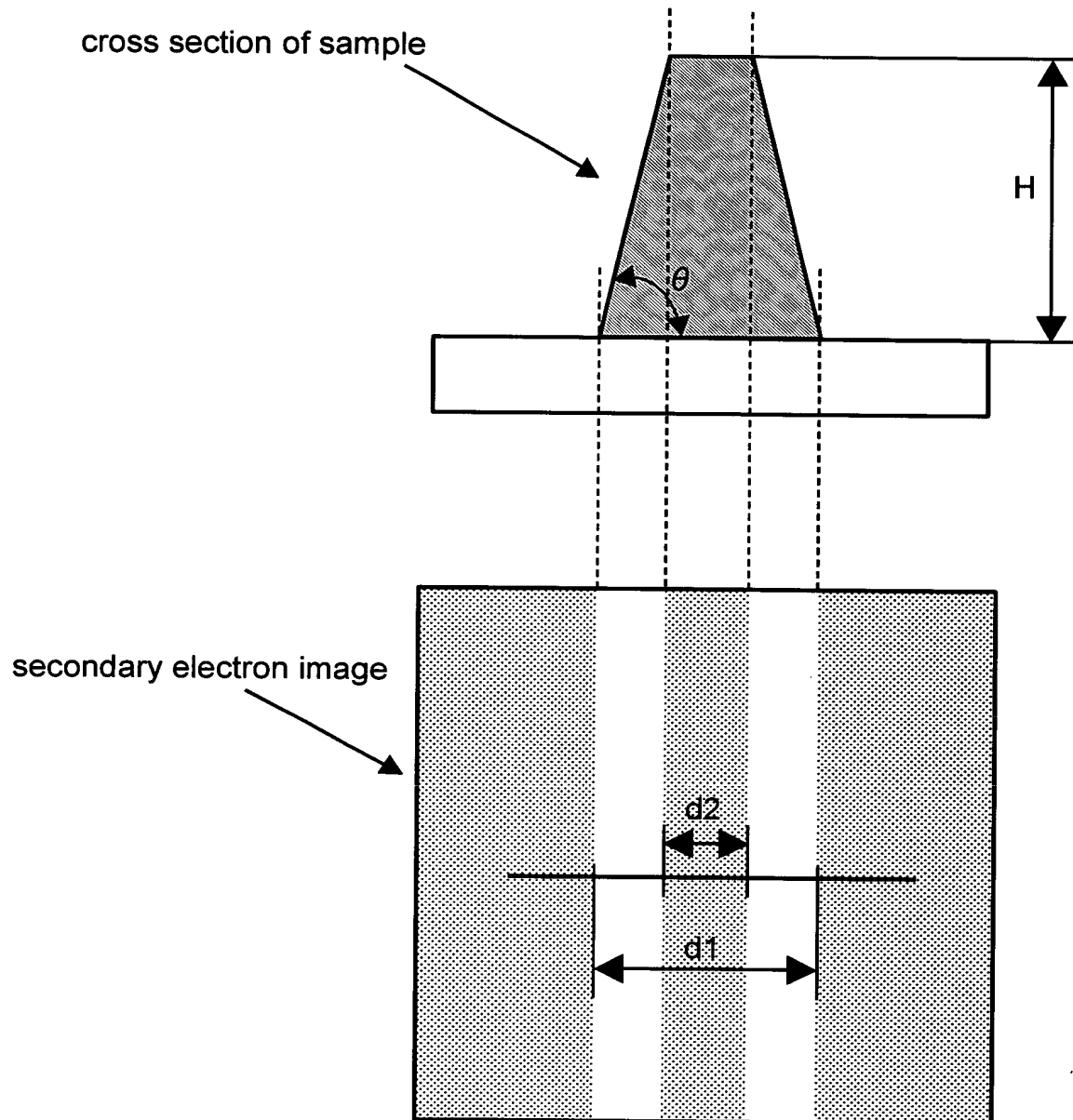


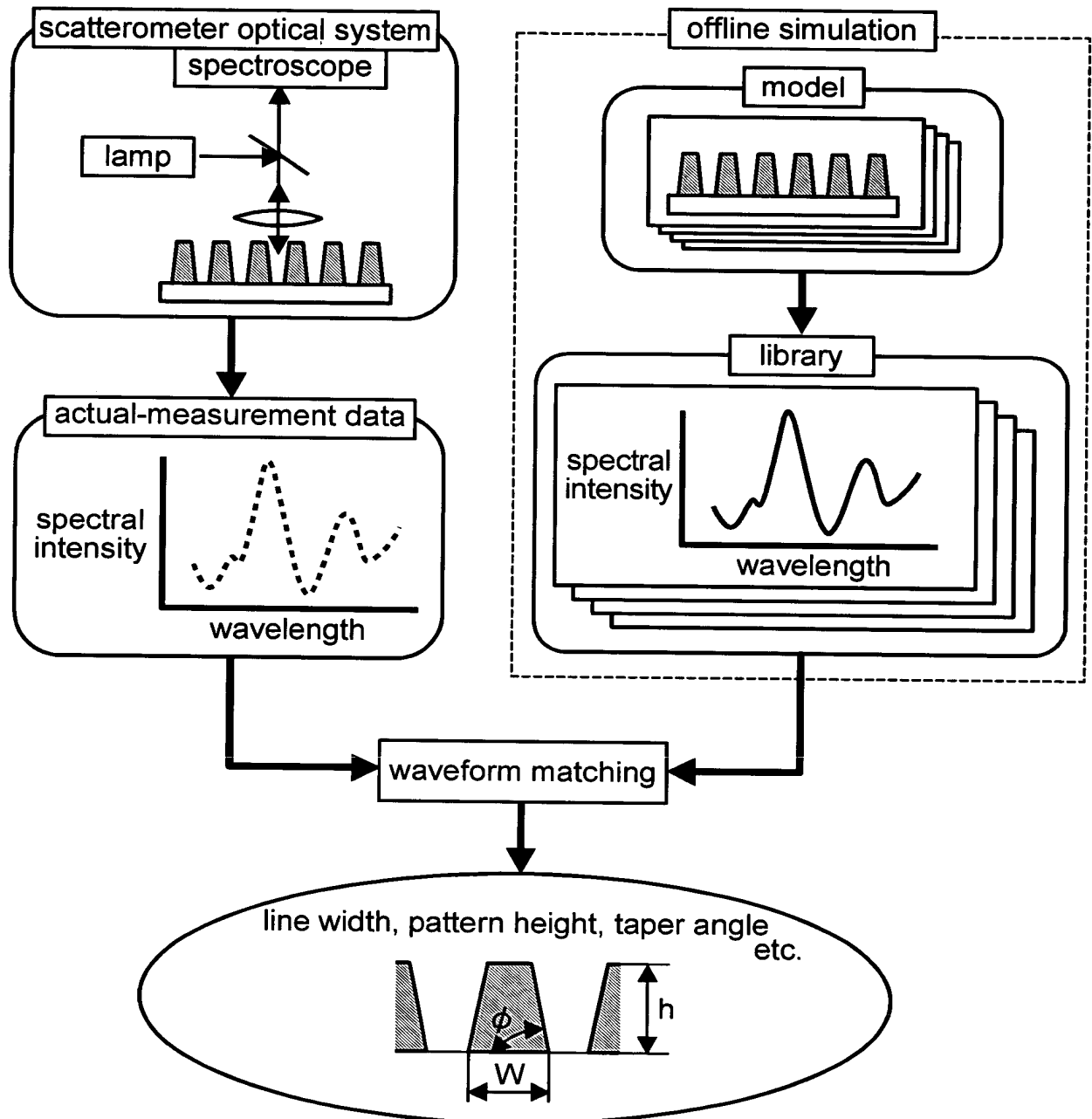
**FIG.1**



**FIG.2**

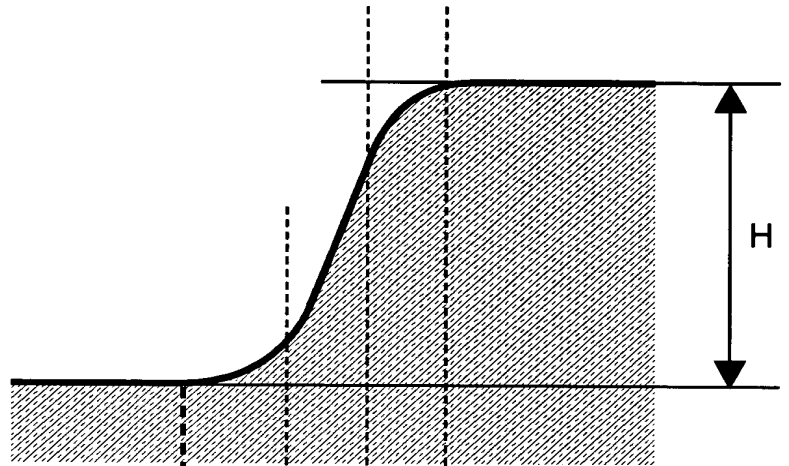


**FIG.3**

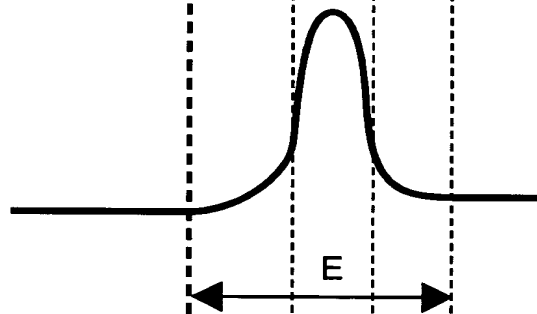


**FIG.4**

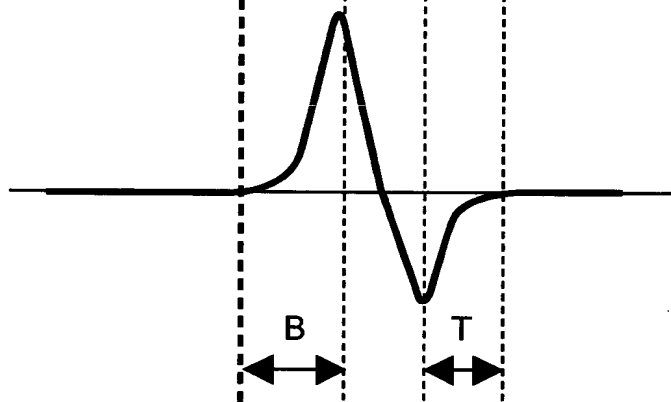
(a) cross sectional shape



(b) signal waveform



(c) first-order differentiation waveform



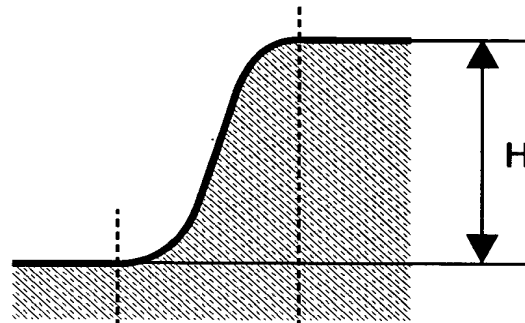
average slope angle:  $\tan^{-1}(H/E)$

bottom roundness:  $B/H$

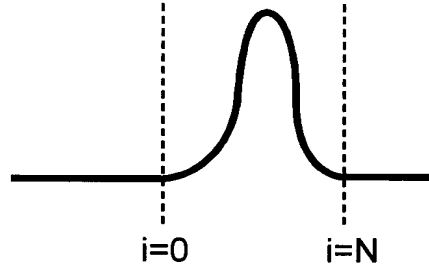
top roundness:  $T/H$

# FIG.5

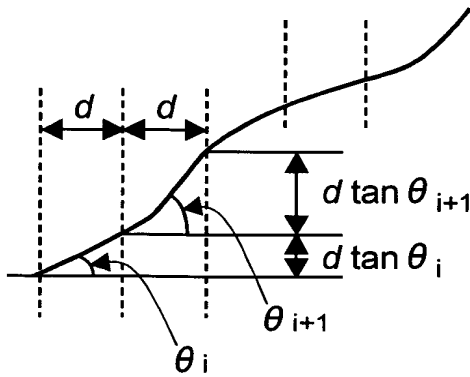
(a) cross sectional shape



(b) waveform



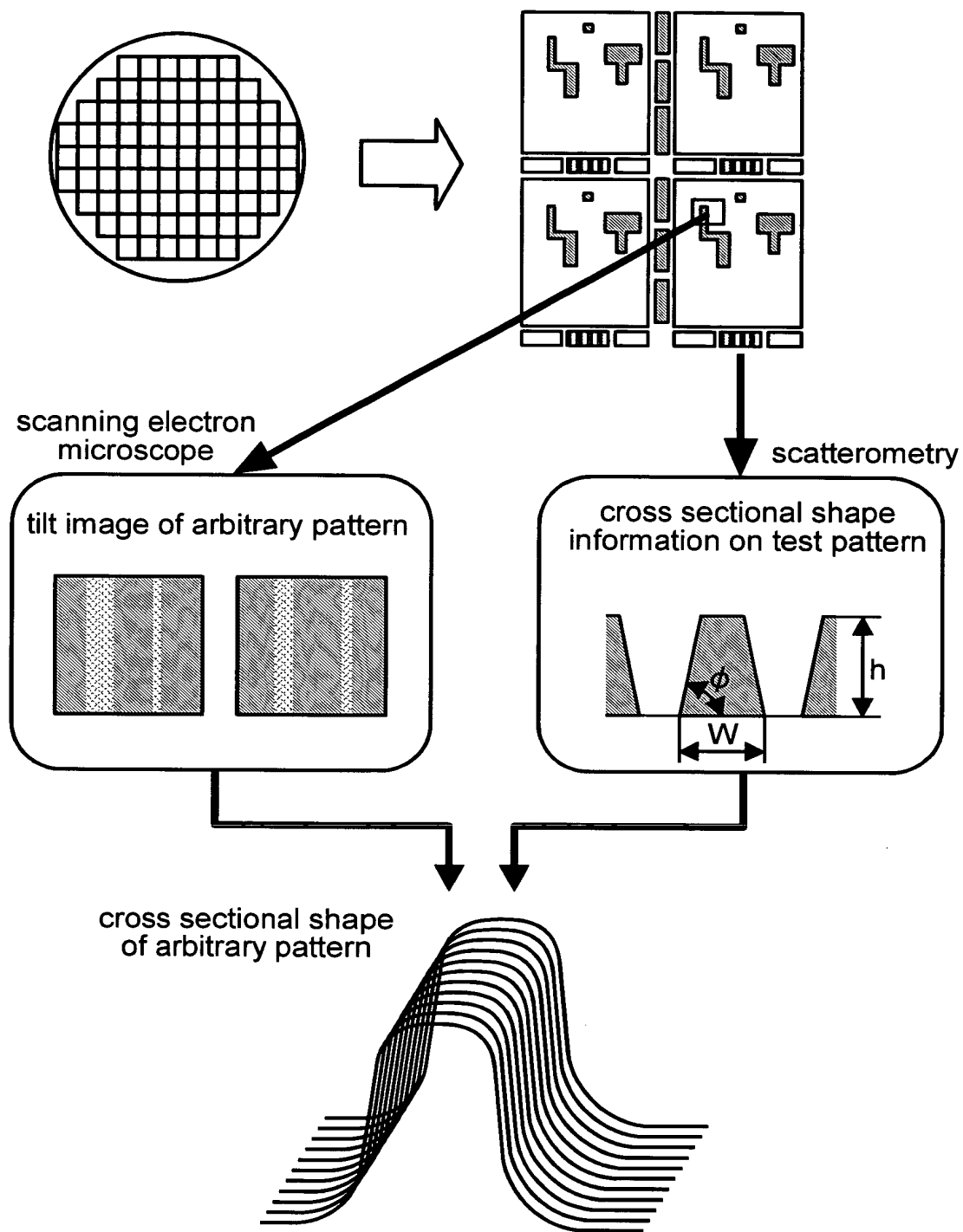
(c)



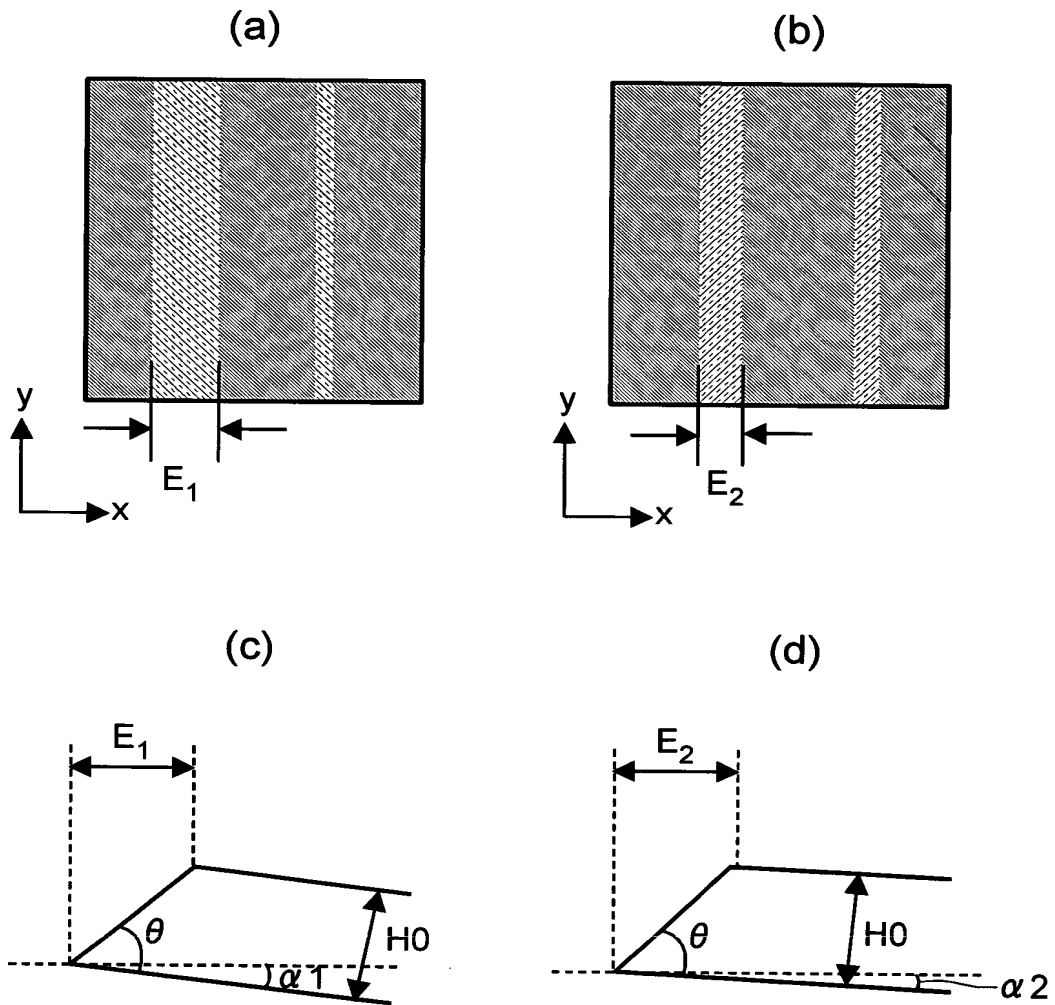
$$SE_i = a \cdot \frac{1}{\cos \theta_i} + b \quad \dots (5.1)$$

$$H = \sum_{i=0}^N d \cdot \tan \theta_i \quad \dots (5.2)$$

**FIG.6**



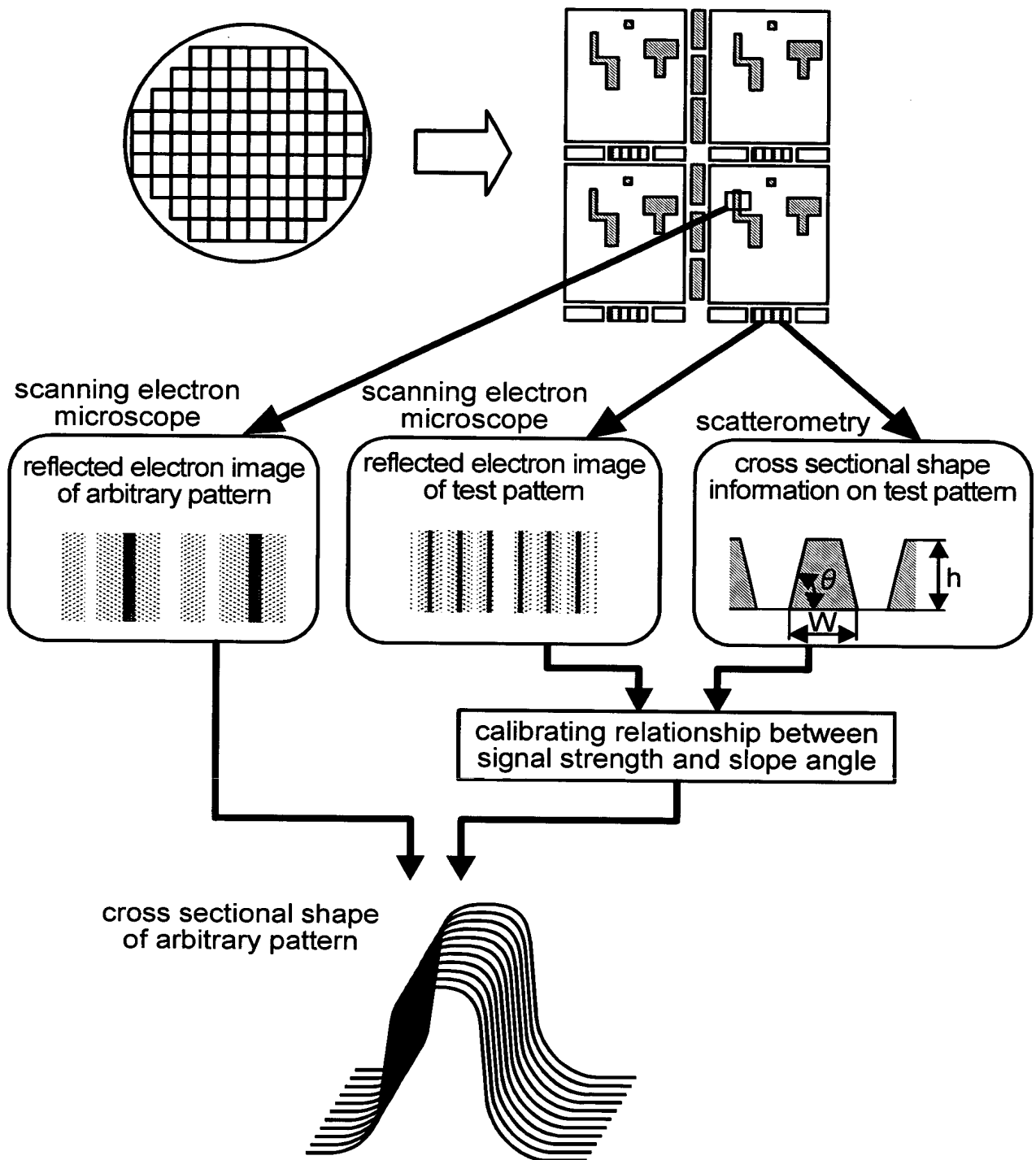
**FIG.7**



$$\theta = \tan^{-1} \frac{E_1 \cos \alpha_2 - E_2 \cos \alpha_1}{E_1 \sin \alpha_2 - E_2 \sin \alpha_1} \dots (7.1)$$

$$H_0 = \frac{E_1 \sin \theta}{\cos(\theta + \alpha_1)} \dots (7.2)$$

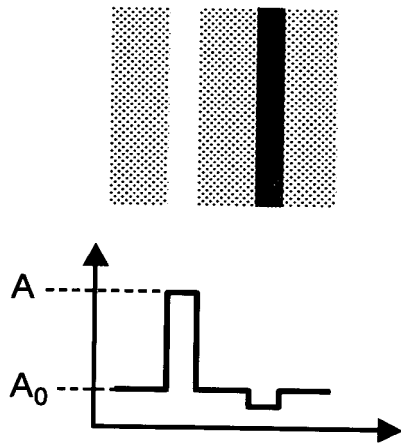
**FIG.8**



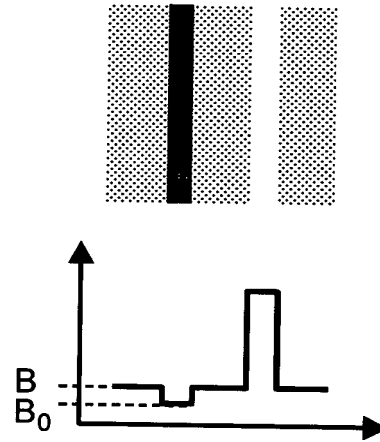


**FIG.9**

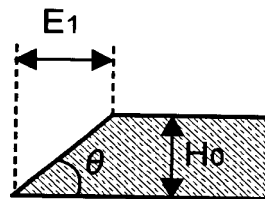
(a)



(b)



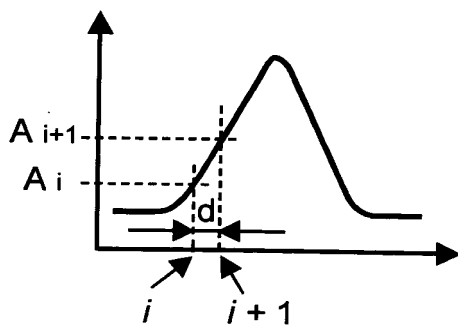
(c)



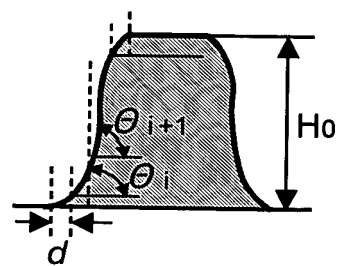
$$\theta = \tan^{-1} K \frac{A^2 - B^2}{A_0 - B_0} \quad \dots (9.1)$$

$$H_0 = E_1 \tan \theta \quad \dots (9.2)$$

(d)



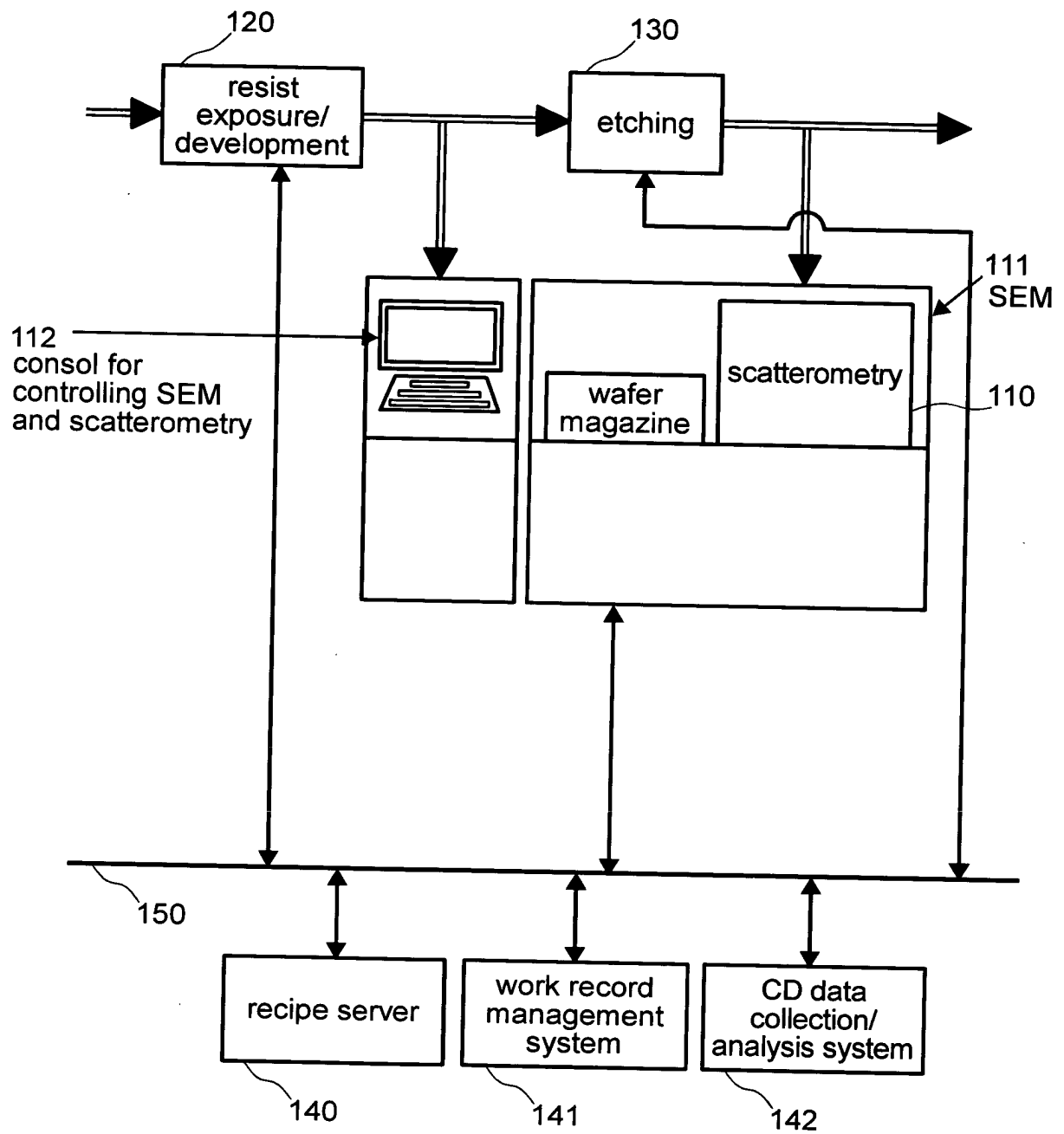
(e)



$$\theta_i = \tan^{-1} K \frac{A^2 - B^2}{A_0 - B_0} \quad \dots (9.3)$$

$$H_0 = d \sum \tan \theta_i \quad \dots (9.4)$$

**FIG.10**



**FIG.11**

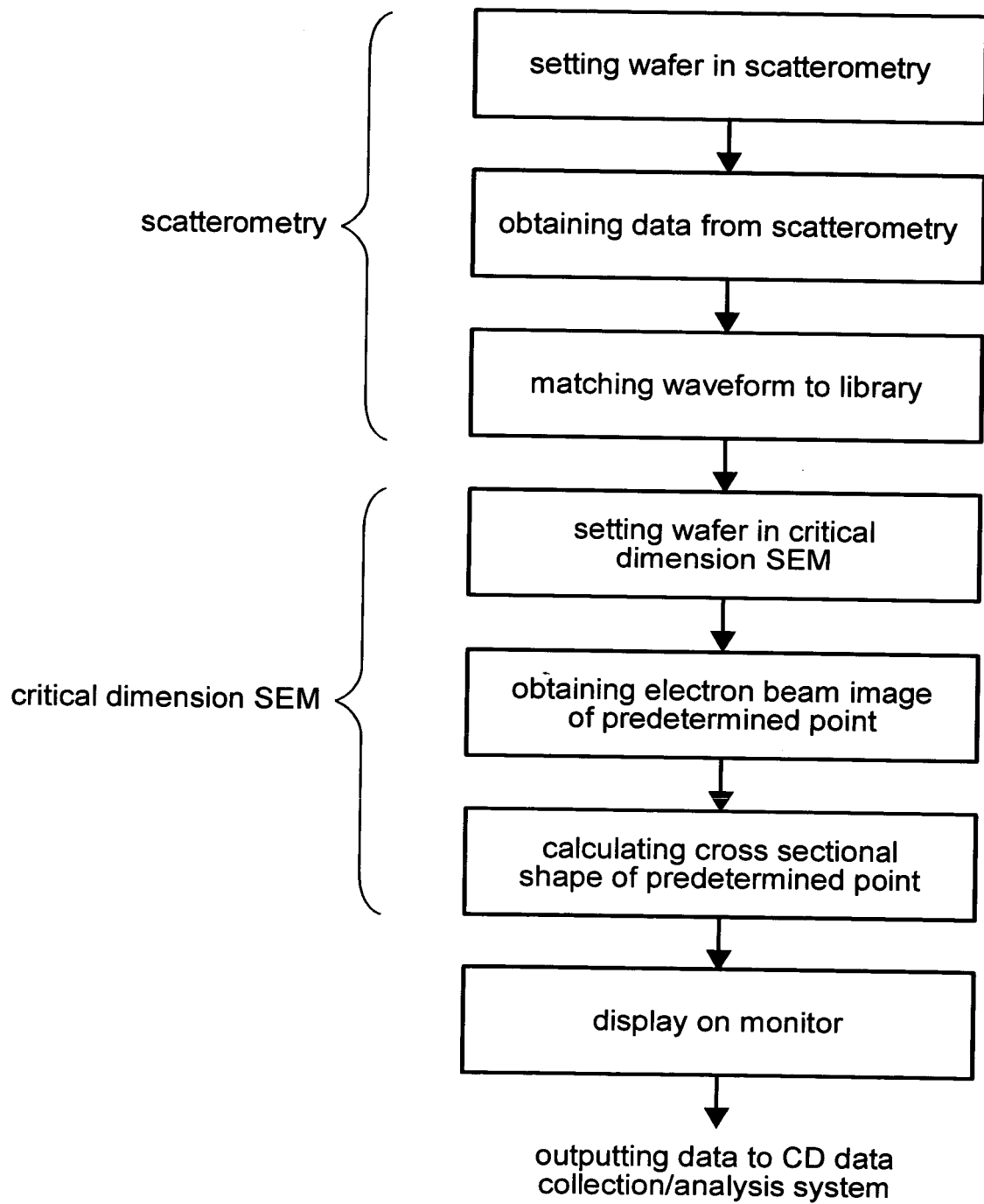
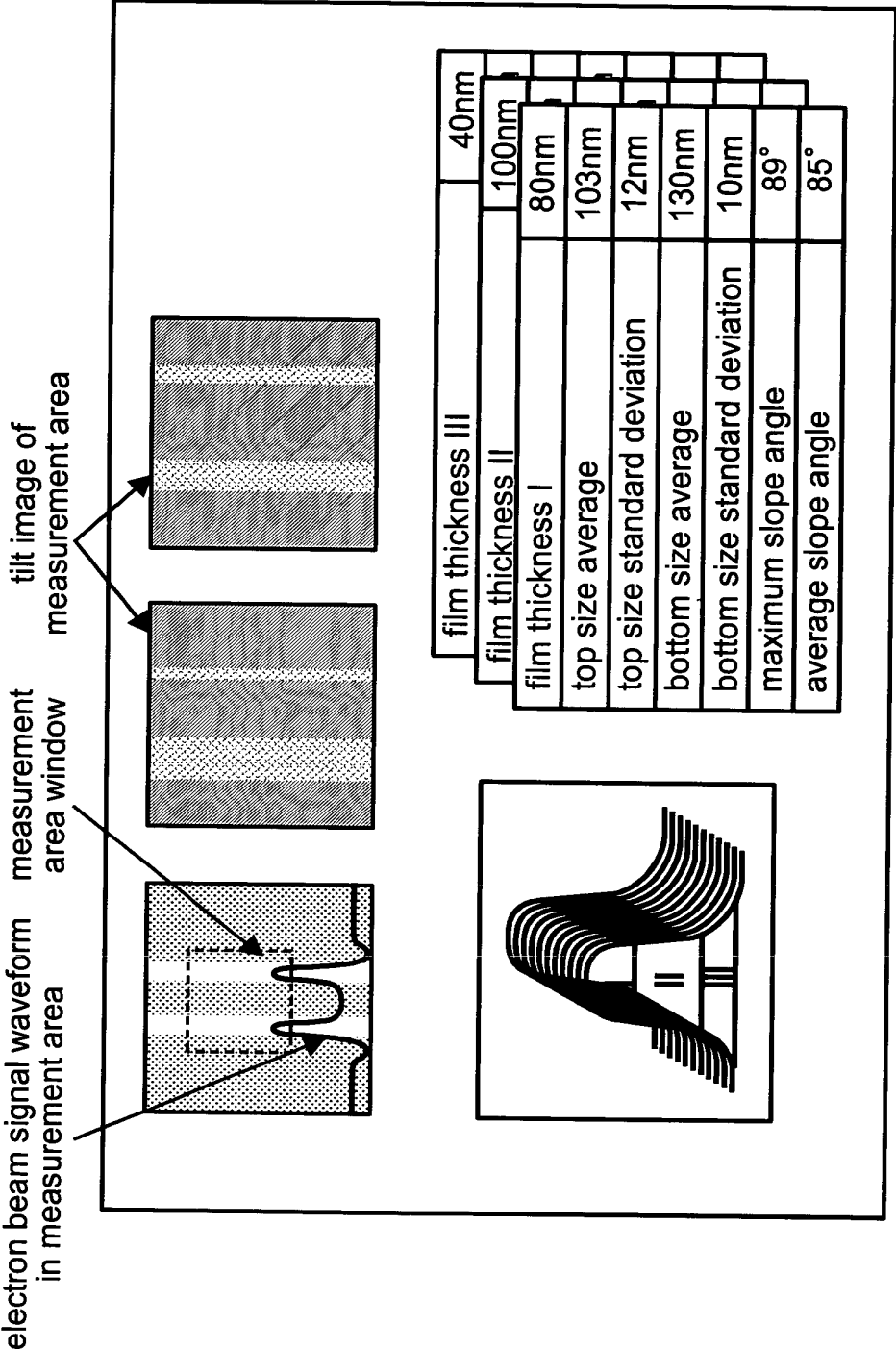


FIG.12



# FIG.13

